# Product Qualification Report

# CYPD3171-24LQXQT

USB-PD

## Description

This product qualification report describes the characteristics of the product with respect to quality and reliability.

The qualification sample selection was done on production lots which were manufactured and tested on standard production processes and meet the defined requirements.

The qualification test results of those products as outlined in this document are based on **JEDEC** for target applications and may reference existing qualification results of similar products. Such referencing is justified by the structural similarity of the products.

## Qualification Assessment

Fully qualified according to **JEDEC** for **Industrial Applications** and assessed as PASS

For further information about comparable products, please contact the nearest Infineon Technologies office (www.infineon.com).

**CYPD3171-24LQXQT** **qualified in 2018**
**PG-VQFN-24**
**MSL: 3; 260°C**

**Electrical Stress Test Results:**

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| Biased Highly Accelerated Stress Test<br>JESD22-A110 | HAST* | Ta = 130°C<br>RH = 85% | 96 h | 2 x 30 | 0 / 60 | PASS |
| High Temperature Operating Life<br>JESD22-A108 | HTOL | Ta = 150°C | 500 h | 3 x 77 | 0 / 231 | PASS |
| ESD (HBM)<br>JS-001 | HBM | Class 2<br>( 2000 V to < 4000 V ) | - | - | - | PASS |
| ESD (CDM)<br>JS-002 | CDM | Class C2a<br>( 500 V to < 750 V ) | - | - | - | PASS |

**Environmental Stress Test Results:**

| Test Description | Abbr. | Condition | Duration | Lots/SS | Fail/Qty | Result |
|---|---|---|---|---|---|---|
| Pre-conditioning<br>J-STD-020 / JESD22-A113 | PC | MSL and 3 x reflow | | 3 x 184 | 0 / 552 | PASS |
| Temperature Cycling<br>JESD22-A104 | TC* | -65°C to +150°C | 500 cyc | 3 x 77 | 0 / 231 | PASS |
| Pressure Cooker Test<br>JESD22-A102 | PCT* | Ta = 121°C<br>RH = 100% | 168 h | 2 x 77 | 0 / 154 | PASS |
| High Temperature Storage Life<br>JESD22-A103 | HTSL* | Ta = 150°C | 1000 h | 1 x 45 | 0 / 45 | PASS |

**Notes:**
* For SMD devices reliability stress tests performed after preconditioning test (PC) according to JESD22

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